

REMARKS

Initially, Applicants express appreciation to the Examiner for the detailed Official Action provided. Furthermore, Applicants express appreciation to the Examiner for acknowledgment that the drawings are acceptable in the Official Action, for the acknowledgment of Applicants' Claim for Priority and Receipt of the certified copies of the priority documents in the Official Action, and for the acknowledgment of Applicants' Information Disclosure Statement (IDS) filed on September 12, 2006 by return of the Form PTO-1449.

Upon entry of the present paper, claims 1-13 will have been amended. However, the herein-contained amendments should not be considered an indication of Applicants' acquiescence as to the propriety of the outstanding rejection. Rather, Applicants have amended claims 1-13 in order to advance prosecution and obtain early allowance of the claims in the present application. Furthermore, no new matter has been introduced by the abovementioned amendments. Thus, claims 1-13 are pending in the present application for consideration by the Examiner with claims 1, 6, 10, and 13 being independent claims.

Applicants address the objection and rejections provided within the Official Action below and respectfully request reconsideration and withdrawal of the outstanding objection and rejections asserted against the claims pending in the present application together with an indication of the allowability of claims 1-13 (i.e., all pending claims) in the next Official communication. Such action is respectfully requested and is now believed to be appropriate for at least the reasons provided below.

Claim Objections

In the outstanding Official Action, claims 6 and 13 were objected to because of informalities. Specifically, the Examiner objected to the recitation of claim 6 of “. . . clusters, the clusters is unit for storing data for a file system,” suggesting that Applicants amend claim 6 for grammatical reasons. In this regard, Applicants have amended claim 6, generally in accordance with the Examiner’s suggestion, to recite “. . . wherein a recording area of the information recording medium is managed in units of blocks, each block includes at least two clusters, and the clusters are units for storing data for a file system . . .”

Furthermore, the Examiner objected to the recitation of claim 13 of “. . . wherein, in case that stored data in the information recording medium is . . .,” suggesting that Applicants amend claim 13 for grammatical reasons. In this regard, Applicants believe that the Examiner intended to object to claim 12 (not claim 13) as claim 12 includes the above-mentioned recitation (not claim 13). Accordingly, Applicants have amended claim 12, generally in accordance with the Examiner’s suggested amendment for claim 13, to recite “. . . wherein, when the stored data in the information recording medium is . . .”

Therefore, by the present response, Applicants have amended claims 6 and 12 (not claim 13), for grammatical reasons, in accordance with the Examiner’s suggestion. Thus, the Examiner is respectfully requested to withdraw the objection to claims 6 and 13. Furthermore, the Examiner is respectfully thanked for bringing this matter to Applicants’ attention so that the same could be corrected to enhance the clarity of the patent to issue from the present application.

35 U.S.C. § 112 Claim Rejections

In the outstanding Official Action, claims 1-9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In this regard, the Examiner rejected claims 1 and 6 under 35 U.S.C. § 112 for reciting the limitation of “the other block,” asserting that there is no previous mention of another block in either claim 1 or claim 6. Thus, the Examiner asserted there is insufficient antecedent basis for the limitation of “the other block,” as recited by claims 1 and 6. Additionally, the Examiner rejected claims 2-5 and claims 7-9 under 35 U.S.C. § 112 for being dependent on claims 1 and 6, respectively.

In this regard, without agreeing to the propriety of the rejection and solely to expedite the patent examination process, Applicants have amended claims 1 and 6 to eliminate any possible basis for the rejection of claims 1-9 under 35 U.S.C. § 112. Accordingly, the rejection is believed to now be moot and should be withdrawn.

35 U.S.C. § 103 Claim Rejections

In the outstanding Official Action, claims 1-13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant’s Admitted Prior Art (hereinafter “AAPA”) in view of U.S. Pat. No. 6,411,552 to Chiba (hereinafter “CHIBA”).

Initially, Applicants note that, without agreeing to the propriety of the Examiner’s rejection and solely to expedite the patent application process, Applicants have amended claims 1-13 with claims 1, 6, 10, and 13 being independent claims.

In this regard, Applicants respectfully traverse the Examiner’s rejection under 35 U.S.C. § 103. Specifically, Applicants respectfully submit that AAPA and CHIBA fail to

render obvious the present invention as now defined by independent claims 1, 6, 10, and 13. For example, with respect to independent claim 1, Applicants respectfully submit that AAPA and CHIBA fail to render obvious the method of recording data, as recited by independent claim 1, wherein the recording area of the information recording medium is managed in units of blocks, and each block includes at least two clusters as units for storing data for the file system. In this regard, as recited by independent claim 1, the method includes searching the blocks for a valid block, the valid block having at least a predetermined threshold number of unused clusters, determining the valid block from the searched blocks, and writing the data in the determined valid block prior to writing the data to the searched blocks having less than the predetermined threshold number of unused clusters.

With respect to the Examiner's rejection of independent claim 1 under 35 U.S.C. § 103, the Examiner acknowledges, on pages 4-5 of the outstanding Official Action, that AAPA does not disclose the features of searching for a valid block which has at least a predetermined threshold number of unused clusters, determining the valid block, and writing the data in the valid block prior to the other blocks. However, the Examiner asserts that CHIBA discloses the limitation of, when necessary to record data in a new free area, searching for a valid block which has at least a predetermined threshold number of unused clusters, determining the valid block, and writing the data in the valid block. In this regard, in contrast to newly amended independent claim 1, CHIBA explicitly discloses that “[a] data processing system is provided with a flash memory including a plurality of blocks . . . [and a] memory control unit having a control circuit for formatting the flash memory according to a format information for substantially coinciding each

cluster serving as a logical unit of memory region of the flash memory with integer ones of the blocks" (see CHIBA, Abstract). In other words, each cluster corresponds with only one block as shown at least in Figures 4 and 6 of CHIBA. Accordingly, CHIBA merely searches for an empty cluster (i.e., block) for writing the data in the empty block.

In contradistinction, the method as recited by amended independent claim 1 includes searching within each block, since each block contains a plurality of clusters, to determine a valid block which has at least a predetermined threshold number of unused clusters. Thus, with respect to the rejection of amended independent claim 1, Applicants respectfully submit that the grounds for the 35 U.S.C. § 103 rejection no longer exist, respectfully request that the rejection be withdrawn, and that amended independent claim 1 be indicated as allowable over AAPA and CHIBA.

Additionally, for at least the reasons discussed *supra*, Applicants also submit that AAPA and CHIBA fail to render obvious the data processing apparatus as recited by independent claim 6 wherein a recording area of the information recording medium is managed in units of blocks, each block includes at least two clusters, and the clusters are units for storing data for a file system. In this regard, independent claim 6 recites an exemplary, non-limiting apparatus for performing the method of independent claim 1. Thus, Applicants respectfully submit that amended independent claim 6 is also allowable at least for the reasons discussed *supra*.

Furthermore, Applicants respectfully submit that, for at least the reasons discussed *supra*, AAPA and CHIBA also fail to render obvious the method of rearranging data, as recited by claim 10, wherein the recording area of the information recording medium is managed in units of blocks, and each block includes at least two clusters as

units for storing data for the file system. Furthermore, Applicants respectfully submit that the method as recited by independent claim 10 recites additional features which further define the present invention over the references of record. For example, the method of rearranging data as recited by claim 10 is directed at rearranging preexisting data that is already stored in the information recording medium, while, in contrast, the method disclosed by CHIBA is solely directed at storing new data from outside the flash memory, in the flash memory.

Additionally, for at least the reasons discussed *supra*, Applicants also submit that AAPA and CHIBA fail to render obvious the data processing apparatus as recited by independent claim 13 wherein the information recording medium is managed in units of blocks with each block including at least two clusters as units for storing data. In this regard, independent claim 13 recites an exemplary, non-limiting apparatus for performing the method of independent claim 6. Thus, Applicants respectfully submit that amended independent claim 13 is also allowable at least for the reasons discussed *supra*.

With respect to the Examiner's rejection of dependent claims 2-5, 7-9, and 11-12, Applicants submit that these claims are all directly or indirectly dependent from one of allowable independent claims 1, 6, 10, and 13, which are allowable for at least the reasons discussed *supra*. Thus, these dependent claims are submitted to also be allowable for at least the reasons discussed *supra*. Furthermore, all dependent claims recite additional features which further define the present invention over the references of record. Additionally, with respect to the Examiner's rejection of dependent claim 12, Applicants note that the Examiner has asserted, on page 13 of the outstanding Official Action, that certain features of dependent claim 12 are not required. In this regard,

Applicants respectfully submit that the Examiner must consider each and every feature recited in the claims and that the Examiner is not permitted to ignore explicitly recited claim features by concluding that, in his opinion, they are not required.

Thus, Applicants respectfully submit that each and every pending claim of the present application (i.e., claims 1-13) meets the requirements for patentability at least under 35 U.S.C. § 103. Accordingly, the Examiner is respectfully requested to withdraw the 35 U.S.C. § 103 rejection and to indicate the allowance of each and every pending claim in the present application.

CONCLUSION

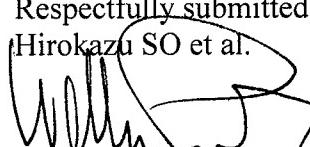
In view of the fact that none of the art of record, whether considered alone, or in any proper combination thereof, discloses or renders obvious the present invention as now defined by the pending claims, and in further view of the above amendments and remarks, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Applicants note that this amendment is being made to advance prosecution of the application to allowance, and should not be considered as surrendering equivalents of the territory between the claims prior to the present amendment and the amended claims. Further, no acquiescence as to the propriety of the Examiner's rejection is made by the present amendment. All amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Commissioner determine that an extension of time is required in order to render this response timely and/or complete, a formal request for an extension of time, under 37 C.F.R. §1.136(a), is herewith made in an amount equal to the time period required to render this response timely and/or complete. The Commissioner is authorized to charge any required extension of time fee under 37 C.F.R. §1.17 to Deposit Account No. 19-0089.

If there should be any questions concerning this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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